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Database Project Assignment 3: Entity Relationship Diagram & Documentation

Create an ERD for your database.

- Use a computer software, such as lucid chart or MS Visio
- Identify any foreign keys
- Identify primary keys
- Describe relationships between your tables using crows foot notation.

For each **table** in your ERD, you should have a paragraph explaining:

- What data is in this table?
- What attributes are included?
- Are there any foreign keys?
- What is the primary key?
- What table(s) does this table have a relationship with?
- What is the relationship between the tables, and why is it that?

The table starts with a manager who registers a team. The ManagerID (primary Key) will have attributes first and last name along with the team he registers TeamID (foreign Key). This table has a relationship with Teams table because the manager registers one team, and the team can have only 1 manager.

In Teams table the TeamID (primary key) has only 2 foreign keys (SportsID and Manager ID), but is connected to 4 tables (Manager, Sports, Players, matches).

The Sports table consists of SportsID (primary Key) which has many sports to choose from (Soccer, Football, Basketball, Volleyball). So, each team is divided into gender and age (attributes). The team can play only 1 sport, but each sport can be played by many teams.

The Players table consists of the PlayerID (primary Key) along with attributes first/last name, gender, position, jersey number and foreign Key TeamID. Each team should have many players and each player can only be in one team.

The matches table is the core of the database having relationships with 4 tables (Score, Results, Teams, and Fields). It consists of the MatchID (primary key) along with attributes Date and attendance. With foreign keys HomeID, AwayID, SportID, and FieldID. This will display the team match info. Each TeamID can either be HomeID or AwayID in a match. But each match can only have one Home and Away team.

The results table has both primary and foreign key MatchID with attributes Home and Away. This will give the final result of each match. Each match has only 1 result and each result is recorded by only 1 match.

The Fields table has primary Key FieldID with attributes Location and Capacity. Each match can only play on 1 field (FieldID), but each field can be played by 1 or many matches.

The Score table has Primary Key ScoreID with attributes Goals/Assists and foreign Keys MatchID, PlayerID, and TeamID. Each score is recorded for only 1 team, but the team can have many score info. Each match has 1 to many score info but each score is recorded for only 1 match. Each player can have 1 or more goals/assists, but each score is recorded by one player.